

IN THE CLAIMS

1. (Currently Amended) Device for hot dip coating a metal strand (1), especially a steel strip, in which the metal strand (1) is passed vertically through a coating tank (3) that contains the molten coating metal (2) and through a guide channel (4) upstream of the coating tank (3), with at least two inductors (5) for inducing an electromagnetic field, which are installed on both sides of the metal strand (1) in the area of the guide channel (4) in order to keep the coating metal (2) in the coating tank (3), ~~characterized by the fact that~~ wherein distance (d) between the walls (6) that bound the guide channel (4) is not constant in the direction (N) normal to the surface of the metal strand (1) in the region (H) of the vertical extent of the guide channel (4) between the lower end (7) of the guide channel (4) and the bottom (8) of the coating tank (3), such that the walls (6) that bound the guide channel (4) have a constriction (10) or an expansion (11).

2. (Currently Amended) Device in accordance with Claim 1, ~~characterized by the fact that~~ wherein the cross section of the constriction (10) or the expansion (11) has essentially the form of a circular segment.

3. (Currently Amended) Device in accordance with ~~Claim 1 or Claim 2, characterized by the fact that~~ Claim 1, wherein at least one flow deflection element (12, 12', 12'', 13, 13') is arranged in the coating tank (3) and/or in the guide channel (4).

4. (Currently Amended) Device in accordance with Claim 3, ~~characterized by the fact that~~ wherein the flow deflection element (12, 12', 12'', 13, 13') is designed as a flat, narrow plate, whose longitudinal axis (14) extends in the direction perpendicular to the direction of conveyance (R) of the metal strand (1) and perpendicular to the direction (N) normal to the surface of the metal strand (1).

5. (Currently Amended) Device in accordance with ~~Claim 3 or Claim 4, characterized by the fact that~~ Claim 3, wherein the one or more flow deflection elements (13, 13') are arranged in the guide channel (4) in the region of the expansion (11).

6. (Currently Amended) Device in accordance with ~~any of Claims 1 to 5, characterized by the fact that~~ Claim 1, wherein at least one bath relaxation plate (16) is arranged in the coating tank (3) near the surface (15) of the coating metal (2).

7. (Currently Amended) Device in accordance with Claim 6, ~~characterized by the fact that~~ wherein the position of the bath relaxation plate (16) can be vertically adjusted by an actuator (17).

8. (Currently Amended) Device in accordance with ~~Claim 6 or Claim 7,~~ ~~characterized by the fact that~~ Claim 6, wherein the bath relaxation plate (16) consists of ceramic material.

9. (Currently Amended) Device in accordance with Claim 8, ~~characterized by the fact that~~ wherein the flow deflection element (12, 12', 12'', 13, 13') is designed as a flat, narrow plate, whose longitudinal axis (14) extends in the direction perpendicular to the direction of conveyance (R) of the metal strand (1) and perpendicular to the direction (N) normal to the surface of the metal strand (1).

10. (Currently Amended) Device in accordance with ~~Claim 8 or Claim 9,~~ ~~characterized by the fact that~~ Claim 8, wherein the one or more flow deflection elements (13, 13') are arranged in the guide channel (4) in the region of the expansion (11).

11. (Currently Amended) Device in accordance with ~~any of Claims 1 to 10,~~ ~~characterized by the fact that~~ Claim 1, wherein at least one bath relaxation plate (16) is arranged in the coating tank (3) near the surface (15) of the coating metal (2).

12. (Currently Amended) Device in accordance with Claim 11,
~~characterized by the fact that~~ wherein the position of the bath
relaxation plate (16) can be vertically adjusted by an actuator (17).

13. (Currently Amended) Device in accordance with ~~Claim 11 or~~
~~12, characterized by the fact that~~ Claim 11, wherein the bath
relaxation plate (16) consists of ceramic material.